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PATENT

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Applicant: Trung V. Le Confirmation No. 7391
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Examiner: Hung Thanh Nguyen
Group Art Unit: 2841
Docket No.: 10383US01
Title: **MEMORY CARD COMPATIBLE WITH MULTIPLE CONNECTOR STANDARDS**

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APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450,
Alexandria, VA 22313

Dear Sir:

This Appeal Brief is responsive to the final Office Action mailed on November 4, 2005, finally rejecting claims 1, 7-13, 15, 19, 20, 23, 25 and 27, and the Notice of Panel Decision mailed on April 7, 2006, affirming that the Appeal should proceed to the Board of Patent Appeals. This Appeal Brief is being filed in triplicate. To cover the costs of filing the Appeal Brief, please charge the required fee of \$500.00 to Deposit Account No. 09-0069.

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TABLE OF CONTENTS

	<u>Page</u>
Real Party in Interest.....	3
Related Appeals and Interferences.....	3
Status of Claims	3
Status of Amendments	3
Summary of the Invention	4
Grounds of Rejection to be Reviewed on Appeal	6
Arguments of the Appellant.....	7
Appendix: Claims on Appeal.....	15

REAL PARTY IN INTEREST

The real party in interest is Imation Corp. of Oakdale, Minnesota.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 1, 7-13, 15, 19, 20, 23, 25 and 27 are on appeal in this case.

Claims 1, 7-10, 12-13, 15, 23, 25 and 27 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko (JP2002084930 or US 2003/0221066).

Claims 11, 19 and 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko in view of Jones et al. (US 6,438,638).

STATUS OF AMENDMENTS

The appealed claims 1, 7-13, 15, 19, 20, 23, 25 and 27 are those that were presented in the Amendment filed on October 3, 2005.

No amendments have been entered after the final Office Action mailed on November 4, 2005.

SUMMARY OF THE INVENTION

Appellant's invention is directed to a memory card that includes two or more connectors that conform to different connector standards.¹ The first connector conforms to a device communication connector (DCC) standard to facilitate direct coupling of the memory card to a portable device such as a voice recorder, a digital video camcorder, a digital camera, a personal digital assistant (PDA), a cellular phone, a video game, a digital television, a photo printer, or the like.² The second connector comprises a host computer connector (HCC) for direct coupling to a computing device without the need for an adapter or a card reader.³ The presence of two connectors that conform to different standards adds versatility to the memory card.

In order to accommodate the two connectors on the same memory card, Appellant's pending claims recite specific memory card architectures, which are fundamentally different from memory card architecture disclosed in the applied art. In particular, unlike the applied art relied upon by the Examiner in the final Office Action, the claimed memory card architectures combine two or more of the controllers and thereby eliminate the need for three different controllers in the memory card to individually control the two different connectors and access to the memory respectively.

Appellant's FIG. 1 illustrates a memory card architecture that is very similar to the art applied by the Examiner in the final Office Action. The architecture illustrated in FIG. 1 is not covered by the currently pending claims, following the Amendment of October 3, 2005. In contrast to FIG. 1 of the current application, the pending claims cover the memory card architectures illustrated in FIGS. 2 and 3.

Like the art applied by the Examiner, FIG. 1 of the present application illustrates an architecture that includes three different controllers.⁴ In particular, first connector 14, second connector 18 and memory 12 each include separate controllers to control these respective components.⁵ First connector controller 15 or second connector controller 17 is enabled to facilitate access to memory 12, depending on which connector 14, 18 is being used.⁶ Memory

¹ See Application, paragraph [0007]

² Id.

³ Id.

⁴ See Application, FIG. 1.

⁵ Id.

⁶ See Application, paragraph [0023].

controller 16 manipulates the data stored in memory 16 according to operations specified by the portable device or computing device.⁷

Unlike FIG. 1 (and unlike the art applied by the Examiner), FIG. 2 of the present application illustrates an alternative memory card architecture. In particular, whereas the architecture shown in FIG. 1 utilizes three separate controllers, i.e., one for each connector 14, 18 and one for memory 12, the embodiment of FIG. 2 combines the memory controller with the controller for first connector 24 as a common controller 26.⁸ Combining a connector controller and a memory controller into first controller 26, in accordance with the claimed invention, can reduce the amount of space and power consumed relative to separate controllers.⁹

The features recited in current independent claims 15 and 27 are directed to the embodiment illustrated in FIG. 2 and do not cover the embodiment illustrated in FIG. 1 or the art applied by the Examiner.

FIG. 3 illustrates yet another memory card architecture. The memory card 30, shown in FIG. 3, includes a memory 32, a first connector 34, a controller 36, and a second connector 38.¹⁰ Controller 36 comprises a memory controller combined with a first connector controller and a second connector controller.¹¹ Whereas the architecture shown in FIG. 1 utilizes a separate controller for each connector 14, 18 and the memory 12, controller 36 combines the functionality of three different controllers into a common unit.¹² By integrating the functionality of each separate controller into a single controller 36, less space and power may be consumed on memory card 30.¹³

The features recited in current independent claims 1 and 23 are directed to the embodiment illustrated in FIG. 3 and do not cover the embodiment illustrated in FIG. 1 or the art applied by the Examiner.

A variety of the pending dependent claims also distinguish the applied art, as outlined in the arguments below.

⁷ Id.

⁸ See Application, paragraph [0029].

⁹ Id.

¹⁰ See Application, paragraph [0035].

¹¹ Id.

¹² Id.

¹³ Id.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Appellant submits the following grounds of rejection to be reviewed on Appeal:

- (1) The first ground of rejection to be reviewed on appeal is the rejection of claims 1, 7-10, 12-13, 15, 23, 25 and 27 under 35 U.S.C. 102(b) as being anticipated by Kaneko.
- (2) The second ground of rejection to be reviewed on appeal is the rejection of claims 11, 19 and 20 under 35 U.S.C. 103(a) as being unpatentable over Kaneko in view of Jones et al.

ARGUMENTS

In the final Office Action, the Examiner rejected claims 1, 7-10, 12-13, 15, 23, 25 and 27 under 35 U.S.C. 102(b) as being anticipated by Kaneko (JP2002084930 or US 2003/0221066); and rejected claims 11, 19 and 20 under 35 U.S.C. 103(a) as being unpatentable over Kaneko in view of Jones et al. (US 6,438,638).

Appellant's pending claims concern memory cards that include two different connectors. In order to accommodate these two connectors, Appellant's pending claims recite specific memory card architectures, which are fundamentally different from that taught by Kaneko. For this reason, the rejections under 35 U.S.C. 102 and 35 U.S.C. 103 are improper and must be reversed. Moreover, the Jones reference provides no teaching that would remedy the deficiencies of Kaneko with respect to the independent claims. Accordingly, the current rejections advanced by the Examiner are erroneous and should be reversed.

All pending claims recite a memory card that includes a first connector that conforms to a first connector standard and a second connector that conforms to a second connector standard. Claims 1 and 15 are independent claims directed to memory cards. Claims 23 and 27 are independent claims directed to systems that include a memory card and the first and second devices to which the memory card can be attached via the first and second connectors. The memory card recited in claim 1 is similar to that recited in system claim 23, while the memory card recited in claim 15 is similar to that recited in new system claim 27. All of these claims also require that the first connector standard comprises a host computer connector (HCC) standard and the second connector standard comprises a device communication connector (DCC) standard.

As noted by the Examiner in the final Office Action, Kaneko teaches a memory card that includes two different connectors. For purposes of this Appeal, Appellant does not dispute the Examiner's conclusions that Kaneko discloses a first connector that complies with a host computer connector (HCC) standard and a second connector that complies with a device communication connector (DCC) standard, as required by all pending claims.

However, the memory card of Kaneko is fundamentally different from those recited in Appellant's claims in another very important respect. In particular, Appellant's claims recite a

different controller architecture than that of Kaneko. Kaneko lacks any suggestion whatsoever of the controller architecture required by Appellant's different claims.

The Kaneko reference

Kaneko teaches a memory card that includes two different connectors, e.g., in FIG. 2. Again, Appellant does not dispute the Examiner's conclusions that Kaneko discloses a first connector that complies with a host computer connector (HCC) standard and a second connector that complies with a device communication connector (DCC) standard, as required by all pending claims.

Kaneko, however, describes a memory card architecture that includes separate controllers for each of the connectors, as well as a separate controller for the memory. In this sense, Kaneko is similar to the embodiment illustrated in FIG. 1 of the present application, but different from the embodiments illustrated in FIGS. 2 and 3 of the present application. The embodiment illustrated in FIG. 1 of the present application (like that of Kaneko) is not covered by the claims, which focus on the embodiments of FIGS. 2 and 3 of the present application.

As shown in FIG. 2 of Kaneko, the memory card of Kaneko includes two different interface controllers 5 and 6, as well as a memory core interface 7. The disclosure of Kaneko refers to element 7 as a memory core interface for accessing memory 4, and therefore, this element is clearly a memory controller that is separate from the different interface controllers 5 and 6.

Again, this teaching of Kaneko is similar to the architecture illustrated in FIG. 1 of Appellant's disclosure, and different from the architectures illustrated in FIGS. 2 and 3 of Appellant's disclosure. The pending claims do not cover the embodiment illustrated in FIG. 1 of Appellant's disclosure, and are distinguishable from Kaneko. The different pending claims cover the architectures illustrated in FIGS. 2 and 3 of Appellant's disclosure, which are unlike that of Kaneko.

The Jones reference

The Examiner cited the Jones reference as disclosing a memory card that includes various features of a retractable connector, e.g., as recited in dependent claim 11. The Examiner also

cited the Jones reference as disclosing a memory card that includes three connectors, e.g., as required by dependent claims 19, and four connectors, e.g., as required by claim 20.

Contrary to the Examiner's analysis, however, Jones et al. does not disclose a retractable connector or a memory card that includes three or four connectors. On the contrary, Jones et al. teaches memory card reader technologies, which are inapposite to the features of Appellant's claims.

Nothing in Jones et al. suggests memory cards that include a retractable connector or memory cards that includes three or four connectors. The memory cards illustrated in Jones are conventional cards that each include one non-retractable connector. The teaching of Jones et al. concerns adaptor technology for reading different types of cards.

Independent claims 1 and 23

Claims 1 and 23 require that the memory card includes *a controller that controls the memory and controls output via the first connector and the second connector*. Hence, claims 1 and 23 require a single controller that controls both memory operations and operations via the first and second connectors. In stark contrast to this requirement of claims 1 and 23, Kaneko discloses a less efficient architecture that includes three different controllers. Rather, Kaneko discloses one controller for the memory (element 7), one for the first connector (element 5), and one for the second connector (element 6). Clearly, none of the controllers of Kaneko controls both the memory and output via the connectors, as required by claims 1 and 23. Instead, in Kaneko, element 7 controls access to the memory 4, element 5 controls terminals 2, and element 6 controls terminals 3.

In order to support an anticipation rejection under 35 U.S.C. 102, it is well established that a prior art reference must disclose each and every element of a claim. This well-known rule of law is commonly referred to as the "all-elements rule."¹⁴ If a prior art reference fails to disclose any element of a claim, then rejection under 35 U.S.C. 102 is improper.¹⁵

¹⁴ See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ 81 (CAFC 1986) ("it is axiomatic that for prior art to anticipate under 102 it has to meet every element of the claimed invention").

¹⁵ *Id.* See also *Lewmar Marine, Inc. v. Barent, Inc.* 827 F.2d 744, 3 USPQ2d 1766 (CAFC 1987); *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (CAFC 1990); *C.R. Bard, Inc. v. MP Systems, Inc.*, 157 F.3d 1340, 48 USPQ2d 1225 (CAFC 1998); *Oney v. Ratliff*, 182 F.3d 893, 51 USPQ2d 1697 (CAFC 1999); *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 57 USPQ2d 1057 (CAFC 2000).

In this case, Kaneko does not disclose or suggest a controller that controls both the memory and output via the first connector and the second connector, as required by claims 1 and 23. In the context of a memory card that includes two different connectors (as also required by Appellant's claims), the controller architecture recited in claims 1 and 23 is clearly novel over the Kaneko reference.

In view of this fundamental distinction, the current rejections of claims 1 and 23 are improper and must be reversed. Furthermore, the Jones reference provides no teaching that would remedy the deficiencies of Kaneko with respect to independent claims 1 or 23.

Independent claims 15 and 27

Claims 15 and 27 require that the memory card include two controllers, i.e., first and second controllers. The first controller is electrically coupled to the memory and the first connector, and controls both the memory and output via the first connector. The second controller is electrically coupled to the second connector and the first controller, and the second controller controls output via the second connector.

Thus, claims 15 and 27 require two controllers, but one of the controllers controls both the memory and output via one of the connectors. This also distinguishes the claimed invention from Kaneko, which again requires three different controllers for the memory, the first connector and the second connector, respectively. None of the controllers of Kaneko controls both the memory and output via a connector.

Appellant also respectively notes that the Examiner's analysis has overlooked the different requirements of independent claims 15 and 27 relative to the requirements of independent claims 1 and 23. Indeed, the Examiner grouped all of claims 1, 15, 23 and 27 together in the analysis of the final Office Action, notwithstanding the differences between claims 15 and 27 relative to claims 1 and 23. Thus, it appears that the Examiner overlooked the differences between claims 1 and 23 and Kaneko, as well as the differences between claims 15 and 27 and Kaneko.

Appellant specifically requests separate decisions by the Board of Patent Appeals, with regard to the patentability of claims 15 and 27 and the patentability of claims 1 and 23. In other words, for purposes of this Appeal, claims 15 and 27 do not stand or fall with claims 1 and 23.

On the contrary, the features of claims 15 and 27 are distinguishable and separately patentable from the features of claims 1 and 23, and vice versa.

Again, according to the “all elements rule,” in order to support an anticipation rejection under 35 U.S.C. 102, a prior art reference must disclose each and every element of a claim.¹⁶ If a prior art reference fails to disclose any element of a claim, then rejection under 35 U.S.C. 102 is improper.¹⁷

With regard to claims 15 and 27, Kaneko does not disclose or suggest a controller that controls both the memory and output via one of two different connectors. In the context of a memory card that includes two different connectors (as also required by Appellant’s claims), the controller architecture recited in claims 15 and 27 is clearly novel over Kaneko.

In view of this fundamental distinction, the current rejections of claims 15 and 27 are improper and must be reversed. Furthermore, the Jones reference provides no teaching that would remedy the deficiencies of Kaneko with respect to independent claims 15 and 27.

Dependent claim 10

Claim 10 is dependent on claim 1, and further requires that at least one of the first connector and the second connector comprises a retractable connector. In the final Office Action, the Examiner indicated that Kaneko discloses a retractable connector. This statement by the Examiner, however, is incorrect. Nothing in Kaneko discloses a retractable connector. For this additional reason, the rejection to claim 10 as being anticipated by Kaneko must be reversed.

Dependent claim 11

Claim 11 is dependent upon claims 1 and 10 and further requires a housing defining a slot for the retractable connector, and a first electrical contact on the retractable connector and a second electrical contact within the slot, wherein the first electrical contact couples to the second electrical contact when the retractable connector is extended from the slot.

¹⁶ See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ 81 (CAFC 1986).

¹⁷ *Id.* See also *Lewmar Marine, Inc. v. Barent, Inc.* 827 F.2d 744, 3 USPQ2d 1766 (CAFC 1987); *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (CAFC 1990); *C.R. Bard, Inc. v. MP Systems, Inc.*, 157 F.3d 1340, 48 USPQ2d 1225 (CAFC 1998); *Oney v. Ratliff*, 182 F.3d 893, 51 USPQ2d 1697 (CAFC 1999); *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 57 USPQ2d 1057 (CAFC 2000).

In the final Office Action, the Examiner acknowledged that Kaneko fails to suggest the features of claim 11, but cited Jones et al. for these features. The Examiner concluded that a person of ordinary skill in the art would have been motivated to modify the system of Kaneko in view of the teaching of Jones et al. to arrive at the features recited in claim 11.

Unfortunately, Jones et al. appears to be wholly irrelevant to the features of claims 10 and 11. To be sure, Jones et al. teaches memory card reader technologies, which are inapposite to the features of Appellant's claims. Nothing in Jones et al. suggests memory cards that include a retractable connector, much less the specific features of claim 11. The memory cards illustrated in Jones et al. are conventional cards, that each include one non-retractable connector. The memory cards of Jones do not include multiple connectors and do not include any retractable features. The teaching of Jones et al. concerns adaptor technology for reading different types of cards. For this additional reason, the rejection of claim 11 is clearly improper and must be reversed.

Dependent claim 12

Claim 12 is dependent upon claims 1 and 10, and further requires that the first connector is disposed on the same side of the memory card as the second connector. Claim 12 stands rejected as being anticipated by Kaneko.

As outlined above, however, Kaneko clearly lacks features of both claims 1 and claim 10. In addition, Kaneko clearly lacks any suggestion of two different connectors disposed on a same side of the memory card. Appellant notes that these first and second connectors are required to be a DCC and an HCC, as outlined above. With respect to DCC and HCC, the only reasonable interpretation of Kaneko clearly requires such connectors to be on opposite sides of the card, which is in direct conflict with the features of claim 12.

Dependent claim 13

Claim 13 is dependent upon claims 1, 10 and 12, and is therefore patentable for each of the different reasons advanced above with respect to these different claims. In addition, claim 13 specifically requires that a set of electrical contact elements of the first connector comprise a subset of a set of electrical contact elements of the second connector. In the final Office Action,

the Examiner rejected claim 13 with very little comment, citing FIGS. 2-4 of Kaneko. Nothing in FIGS. 2-4 of Kaneko, however, suggests a set of electrical contact elements of a first connector comprise a subset of a set of electrical contact elements of the second connector. For purposes of interpretation of claim 13, Appellant again notes that these first and second connectors are required to be a DCC and an HCC, as outlined above.

Dependent claims 19 and 20

Claim 19 is dependent upon claim 1, and further requires a third connector electrically coupled to the memory and conforming to a third connector standard. Claim 20 is dependent upon claim 19, and further requires a fourth connector electrically coupled to the memory and conforming to a fourth connector standard.

With respect to claims 19 and 20, Examiner acknowledged that Kaneko fails to suggest the features of these claims, but cited Jones et al. for these features. The Examiner concluded that a person of ordinary skill in the art would have been motivated to modify the system of Kaneko in view of the teaching of Jones et al. to arrive at the features recited in claims 19 and 20.

Jones et al. is completely irrelevant to the features of claims 19 and 20, and lacks any suggestion of memory cards that include three or four connectors. The teaching of Jones et al. concerns memory card reader technology, which is inapposite to the features of Appellant's claims. Nothing in Jones et al. suggests memory cards that include three or four connectors. The memory cards illustrated in Jones et al. are conventional cards that each include one non-retractable connector.

While the memory card *readers* illustrated in Jones et al. may include four connectors to receive four different cards, these readers are not themselves memory cards. Instead, the card readers of Jones et al. are used to read conventional memory cards, each of which have a single non-retractable connector that conforms to one standard supported by respective memory cards. The Examiner's reliance on Jones et al. as teaching memory cards that include three or four connectors is clearly mistaken and must be reversed.

Conclusion of Arguments

The Examiner has failed to establish a prima facie case of anticipation of claims 1, 7-10, 12-13, 15, 23, 25 and 27 because Kaneko lacks one or more elements of these different claims, as outlined above. The Examiner has also failed to establish a prima facie case of obviousness of claims 11, 19 and 20 because both Kaneko and Jones et al. lack one or more elements of these different claims, as outlined above.

In view of the Appellant's arguments, the final rejections of claims 1, 7-13, 15, 19, 20, 23, 25 and 27 are improper and should be reversed.

Independent claims 15 and 27 are separately patentable from independent claims 1 and 23. Accordingly, claims 15 and 27 do not stand or fall with claims 1 and 23, and vice versa.

Each of dependent claims 10, 11, 12, 13, 19 and 20 is separately patentable from independent claim 1. Therefore, each of dependent claims 10, 11, 12, 13, 19 and 20 do not stand or fall with independent claim 1.

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APPENDIX 1
THE CLAIMS ON APPEAL

Claim 1 (Previously Presented) A memory card comprising:

a memory;

a first connector electrically coupled to the memory and conforming to a first connector standard;

a second connector electrically coupled to the memory and conforming to a second connector standard, wherein the first connector standard comprises a host computer connector (HCC) standard and the second connector standard comprises a device communication connector (DCC) standard; and

a controller that controls the memory and controls output via the first connector and the second connector, wherein the first and second connectors are electrically coupled to the memory through the controller and wherein the controller comprises a memory controller integrated with a first connector controller conforming to the first connector standard and integrated with a second connector controller conforming to the second connector standard.

Claims 2-6 (Cancelled).

Claim 7 (Previously Presented) The memory card of claim 1, wherein:
the HCC comprises a standard selected from a group consisting of: a personal computer memory card international association (PCMCIA) standard, a PC Card standard, a CardBus standard, a Universal Serial Bus (USB) standard, a Universal Serial Bus 2 (USB2) standard, an IEEE 1394 FireWire standard, a Small Computer System Interface (SCSI) standard, an Advance Technology Attachment (ATA) standard, a serial ATA standard, a Peripheral Component Interconnect (PCI) standard, and a conventional serial or parallel standard; and

the DCC comprises a standard selected from a group consisting of: a Compact Flash standard, a Smart Media standard, a MultiMedia Card standard, a Secure Digital standard, a Memory Stick standard, and an xD standard.

Claim 8 (Original) The memory card of claim 1, wherein the first connector is disposed on a different side of the memory card than the second connector.

Claim 9 (Original) The memory card of claim 8, wherein the first connector is disposed on an opposite side of the memory card relative to the second connector.

Claim 10 (Original) The memory card of claim 1, wherein at least one of the first connector and the second connector comprises a retractable connector.

Claim 11 (Original) The memory card of claim 10, further comprising:
a housing defining a slot for the retractable connector; and
a first electrical contact on the retractable connector and a second electrical contact within the slot, wherein the first electrical contact couples to the second electrical contact when the retractable connector is extended from the slot.

Claim 12 (Original) The memory card of claim 10, wherein the first connector is disposed on the same side of the memory card as the second connector.

Claim 13 (Original) The memory card of claim 12, wherein a set of electrical contact elements of the first connector comprise a subset of a set of electrical contact elements of the second connector.

Claim 14 (Canceled).

Claim 15 (Previously Presented) A memory card comprising:

 a memory;

 a first connector electrically coupled to the memory and conforming to a first connector standard;

 a second connector electrically coupled to the memory and conforming to a second connector standard, wherein the first connector standard comprises a host computer connector (HCC) standard and the second connector standard comprises a device communication connector (DCC) standard;

 a first controller electrically coupled to the memory and the first connector, the first controller controlling the memory and output via the first connector, wherein the first controller comprises a memory controller integrated with a first connector controller conforming to the first connector standard; and

 a second controller electrically coupled to the second connector and the first controller, the second controller controlling output via the second connector and conforming to the second connector standard, wherein the first connector is electrically coupled to the memory through the first controller, and the second connector is electrically coupled to the memory through the second controller and the first controller.

Claims 16-18 (Canceled).

Claim 19 (Original) The memory card of claim 1, further comprising a third connector electrically coupled to the memory and conforming to a third connector standard.

Claim 20 (Original) The memory card of claim 19, further comprising a fourth connector electrically coupled to the memory and conforming to a fourth connector standard.

Claims 21-22 (Canceled).

Claim 23 (Previously Presented) A system comprising:
a first device including a first electrical contact for receiving a connector that conforms to a first connector standard;
a second device including a second electrical contact for receiving a connector that conforms to a second connector standard; and
a memory card including:
a memory,
a first connector conforming to the first connector standard such that the first connector can be received by the first electrical contact of the first device,
a second connector conforming to the second connector standard such that the second connector can be received by the second electrical contact of the second device, wherein the first connector standard comprises a host computer connector (HCC) standard and the second connector standard comprises a device communication connector (DCC) standard, and
a controller that controls the memory and controls output via the first connector and the second connector, wherein the first and second connectors are electrically coupled to the memory through the controller and wherein the controller comprises a memory controller integrated with a first connector controller conforming to the first connector standard and integrated with a second connector controller conforming to the second connector standard.

Claim 24 (Canceled).

Claim 25 (Previously Presented) The system of claim 23, wherein the first connector standard comprises a DCC standard selected from a group consisting of: a Compact Flash standard, a Smart Media standard, a MultiMedia Card standard, a Secure Digital standard, a Memory Stick standard, and an xD standard; and

the second connector standard comprises an HCC standard selected from a group consisting of: a personal computer memory card international association (PCMCIA) standard, a PC Card standard, a CardBus standard, a Universal Serial Bus (USB) standard, a Universal Serial Bus 2 (USB2) standard, an IEEE 1394 FireWire standard, a Small Computer System Interface (SCSI) standard, an Advance Technology Attachment (ATA) standard, a serial ATA standard, a Peripheral Component Interconnect (PCI) standard, and a conventional serial or parallel standard.

Claim 26 (Canceled).

Claim 27 (Previously Presented) A system comprising:

 a first device including a first electrical contact for receiving a connector that conforms to a first connector standard;

 a second device including a second electrical contact for receiving a connector that conforms to a second connector standard; and

 a memory card including:

 a memory,

 a first connector conforming to the first connector standard such that the first connector can be received by the first electrical contact of the first device,

 a second connector conforming to the second connector standard such that the second connector can be received by the second electrical contact of the second device, wherein the first connector standard comprises a host computer connector (HCC) standard and the second connector standard comprises a device communication connector (DCC) standard,

 a first controller electrically coupled to the memory and the first connector, the first controller controlling the memory and output via the first connector, wherein the first controller comprises a memory controller integrated with a first connector controller conforming to the first connector standard, and

 a second controller electrically coupled to the second connector and the first controller, the second controller controlling output via the second connector and conforming to the second connector standard, wherein the first connector is electrically coupled to the memory through the first controller, and the second connector is electrically coupled to the memory through the second controller and the first controller.